

CLAIMS

What is Claimed is:

1. A containment device for semiconductor wafers, comprising:

a base including at least one cylindrical wall extending therefrom, said at least one cylindrical wall forming a wafer containment space therewithin, said at least one cylindrical wall including slots through which latch elements pivot radially; and

a lid which includes means for capturing said latch elements in an outwardly pivoted position and urging said latch elements to a radially inward position so as to engage semiconductor wafers within said wafer containment space, said latch elements thereby detent engaging said lid, said lid forming a top of the containment device when said base and said lid are detent engaged together.
2. The containment device for semiconductor wafers of Claim 1 wherein said at least one cylindrical wall extends perpendicularly from said base.
3. The containment device for semiconductor wafers of Claim 2 wherein said latch elements pivot between an outward position which is substantially away from said wafer containment space and an inward upright position which impinges said wafer containment space.
4. The containment device for semiconductor wafers of Claim 3 wherein said means for capturing and urging includes ramps formed from an exterior portion of said lid to slots formed inwardly adjacent from said exterior portion, wherein said ramps capture said latch

elements in said outward position and said slots detent engage said latch elements in said upright position.

5. The containment device for semiconductor wafers of Claim 4 wherein said latch elements include an exterior relatively rigid portion and an interior spacer element, said interior spacer element for impinging into said wafer containment space.

6. The containment device for semiconductor wafers of Claim 5 wherein said relatively rigid portion includes a groove and said interior spacer element includes a flange for engaging said groove.

7. The containment device for semiconductor wafers of Claim 6 wherein said pivoting latch elements include a first arm and a second arm at an obtuse angle to each other, wherein said first arm includes an element for detent engaging said lid and said second arm includes a pivot axis.

8. The containment device for semiconductor wafers of Claim 7 wherein said second arm travels within a pocket in said base.

9. The containment device for semiconductor wafers of Claim 1 wherein said lid includes a lid cylindrical wall which, when said base and said lid are detent engaged together, fits immediately outwardly adjacent from said at least one cylindrical wall of said base.

10. The containment device for semiconductor wafers of Claim 9 wherein male aligning elements are formed outward of said at least one cylindrical wall and female aligning

elements are formed on said lid cylindrical wall, whereby said male aligning elements and said female aligning elements engage when said base and said lid are detent engaged together.

11. A containment device for semiconductor wafers, comprising:

a base including an inner concentric cylindrical wall and an outer concentric cylindrical wall extending therefrom, said inner cylindrical wall forming a wafer containment space therewithin, said inner and outer concentric cylindrical walls including slots through which latch elements pivot radially; and

a lid which includes means for capturing said latch elements in an outwardly pivoted position and urging said latch elements to a radially inward position so as to engage semiconductor wafers within said wafer containment space, said latch elements thereby detent engaging said lid, said lid forming a top of the containment device when said base and said lid are detent engaged together.

12. The containment device for semiconductor wafers of Claim 11 wherein said inner and outer concentric cylindrical walls extend perpendicularly from said base.

13. The containment device for semiconductor wafers of Claim 12 wherein said latch elements pivot between an outward position which is substantially away from said wafer containment space and an inward upright position which impinges said wafer containment space.

14. The containment device for semiconductor wafers of Claim 13 wherein said means for capturing and urging includes ramps formed from an exterior portion of said lid to slots

formed inwardly adjacent from said exterior portion, wherein said ramps capture said latch elements in said outward position and said slots detent engage said latch elements in said upright position.

15. The containment device for semiconductor wafers of Claim 14 wherein said latch elements include an exterior relatively rigid portion and an interior spacer element, said interior spacer for impinging into said wafer containment space.

16. The containment device for semiconductor wafers of Claim 15 wherein said relatively rigid portion includes a groove and said interior spacer element includes a flange for engaging said groove.

17. The containment device for semiconductor wafers of Claim 16 wherein said pivoting latch elements include a first arm and a second arm at an obtuse angle to each other, wherein said first arm includes an element for detent engaging said lid and said second arm includes a pivot axis.

18. The containment device for semiconductor wafers of Claim 17 wherein said second arm travels within a pocket in said base.

19. The containment device for semiconductor wafers of Claim 11 wherein said lid includes a lid cylindrical wall which, when said base and said lid are detent engaged together, fits immediately outwardly adjacent from said outer concentric cylindrical wall of said base.

20. The containment device for semiconductor wafers of Claim 19 wherein male aligning elements are formed outward of said outer concentric cylindrical wall and female aligning elements are formed on said lid cylindrical wall, whereby said male aligning elements and said female aligning elements engage when said base and said lid are detent engaged together.